

LIST OF ACRONYMS AND ABBREVIATIONS

ARAR	Applicable or Relevant and Appropriate Requirements
ARC	Atlantic Richfield Company
BLM	Bureau of Land Management
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
COC	contaminants of concern
COEC	contaminants of ecological concern
EPA	U.S. Environmental Protection Agency
ET	evapotranspiration
FMS	Fluid Management System
FS	Feasibility Study
FFS	Focused Feasibility Study Conceptual Closure Plan
gpm	gallons per minute
HDPE	high density polyethylene
HHRA	human health risk assessment
HI	hazard index
HLP	heap leach pad
HQ	hazard quotient
MCL	maximum contaminant level
MNA	monitored natural attenuation
NDEP	Nevada Division of Environmental Protection
NPV	net present value
O&M	operations and maintenance
OU	Operable Unit
Plan	Proposed Plan (note see below)
PP	Proposed Plan (note used in text once, not defined. Remove?)
RAO	Remedial Action Objective
RI/FS	Remedial Investigation/Feasibility Study
SLERA	screening-level ecological risk assessment
SPS	Singatse Peak Services
VLT	vat-leach tailings

GLOSSARY OF TERMS

Acidic drain-down fluids – An acidic liquid solution such as sulfuric acid that is passed through crushed ore on a heap leach pad to promote the extraction of metals for recovery.

Applicable or Relevant and Appropriate Requirements (ARARs) – Any state or federal statute or regulation that pertain to the protection of human health and the environment in addressing specific conditions (chemical, action, and location) or use of a particular cleanup technology at a Superfund site.

Atlantic Richfield Company (ARC) – The oil company that was formed by the merger of East Coast-based Atlantic Refining and California-based Richfield Petroleum in 1966. Since 2000, ARC has been a subsidiary of British Petroleum (BP), and is officially known as *BP West Coast Products LLC*. ARC merged with Anaconda Copper Mining Company (ACM) of Montana in 1977. ACM/ARC owned at the Anaconda Yerington Mine from 1941 to 1982. Currently ARC continues to perform operation and maintenance for OU-8, as provided for in the 2009 Consent Order.

Arsenic - A brittle, grey and highly poisonous metal, used as a metal alloy and as an insecticide/weed killer.

Biota - The animal and plant life of a particular region.

Carcinogenic risk - A number, generally expressed in exponential form (i.e., 1×10^{-6} , which means one in one million), which describes the increased possibility of an individual developing cancer from exposure to toxic materials. Calculations producing cancer risk numbers are complex and typically include a number of assumptions designed to be conservative estimates of risk.

Chromium - A hard, brittle, grayish metal used in tanning, paint formulation, and metal plating for corrosion protection. This metal can be toxic and, in its hexavalent (versus trivalent) form, chromium is listed as a cancer-causing agent.

Chronic risks – Contaminant risks associated with repeated exposure over a period of time.

Cobalt - Cobalt is a lustrous silver-white, hard and brittle element, and which is essential to humans and animals as a constituent of vitamin B₁₂. Chronic exposure to cobalt by inhalation in humans results in adverse effects on the respiratory system.

Contaminant of Concern (COC) - These are chemicals that significantly contribute to unacceptable risks to human health.

Contaminant of Ecological Concern (COEC) – These are chemicals that significantly contribute to unacceptable risks to ecological receptors.

Copper – A distinctively-colored metal used for electric wiring, plumbing, heating and building construction, and automobile brake linings, that can be toxic at certain levels.

Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) – The

Federal law that addresses problems resulting from releases of hazardous substances to the environment.

Drain-down Fluid – The solution that is collected at the bottom of the heap leach pad that typically contains salts and metals.

Dump Ore – A low grade oxide and sulfide ore that was “dumped” or stockpiled by Anaconda in Waste Rock Dumps south of Burch Drive. These low grade ores were later processed by Arimetco in several heap leach pads (HLP) for metals recovery.

Electrowinning Plant – This is a process plant designed for the electrically induced deposition of metals from a solution of ore material.

Evaporation ponds – These are artificial ponds with large surface areas designed to efficiently evaporate water by convection. These ponds are also used to separate ores or sediment from water.

Evapotranspiration (ET) – A term for the process of water evaporation from soil and transpiration or uptake by plants.

Feasibility Study (FS) – A process under CERCLA to develop, screen, and evaluate various remedial alternatives being considered for selection of a remedial action.

Fluid Management System (FMS) – A network of ponds and ditches used to separately convey and treat drain-down fluids, and collect and discharge stormwater.

Focused Feasibility Study Conceptual Closure Plan (FFS) - A report prepared for the Nevada Division of Environmental Protection (NDEP) to describe the proposed preliminary engineering design of the preferred alternative for closure of OU- 8.

Hazard Index (HI) - The sum of hazard quotients for substances that affect the same target organ or organ system. As with the hazard quotient, aggregate exposures below an HI of 1.0 derived using target organ specific hazard quotients likely will not result in adverse non-cancer health effects over a lifetime of exposure and would ordinarily be considered acceptable.

Hazard Quotient (HQ) - The ratio of the potential exposure to the substance and the level at which no adverse health effects are expected. A hazard quotient less than or equal to one indicates that adverse noncancer effects are not likely to occur, and thus can be considered to have negligible hazard.

Heap leach pad (HLP) – Heap leaching is a mined ore extraction process for recovering metals. In the process crushed ore is placed on a liner which constitutes a HLP and a liquid is passed through the crushed ore, creating a drain-down fluid that is concentrated in dissolved metals for recovery. At the end of mining operation, a HLP may be left in place with steps taken to prevent continued leaching of metals.

High density polyethylene (HDPE) liners - An impermeable plastic material used as a water-retaining barrier designed to keep leachate from moving outside ponds, HLPs, waste piles, or landfills.

Human Health Risk Assessment (HHRA) – A study that provides an evaluation of the potential threat to human health in the absence of any remedial action.

Hydrologically – A term detailing the occurrence, circulation, distribution, and properties of the waters of the earth.

Leachate - Any liquid that, in the course of passing through matter, extracts soluble or suspended solids, of the material through which it has passed. Used in mining to extract metals from crushed rock.

Modifying Criteria - The administrative criteria upon which the selection analysis of remedial alternatives is based and includes State/support agency and community acceptance. These criteria are evaluated following comments on the RI/FS report and the proposed plan.

Net Present Value (NPV) – The present day amount of money necessary to secure the promise of future payment or series of payments at an assumed interest rate.

pH – A numerical value between 0 and 14 that is used to specify the acidity or alkalinity of an aqueous solution.

Precipitates – A substance deposited in a solid form from a solution upon the evaporation of water.

Primary Balancing Criteria - The technical criteria upon which the detailed analysis of remedial alternatives is primarily based and includes: long-term effectiveness and permanence, reduction of toxicity, mobility, or volume through treatment, short-term effectiveness, implementability, and cost.

Radium-228 - A radioactive element with a half-life of 1,600 years that emits alpha particles as it transforms into radon.

Remedial Investigation (RI) – A process under CERCLA to determine the nature and extent of the problem presented by a contaminant release.

Risk – A term that refers to the probability of harm to people from exposure to chemicals.

Screening-Level Ecological Risk Assessment (SLERA) - A study that estimates the possible effects of contamination on plants and animals in the absence of any remedial action.

Singatse Peak Services (SPS) – The current owner and operator of the Anancoda Mine.

Threshold Criteria – A term that refers to the statutory requirements that each remedial alternative must satisfy in order to be eligible for selection and include: 1) overall protection of human health and the environment and 2) compliance with applicable or relevant and appropriate requirements.

Topography – A term that refers to the configuration of a surface including its relief in detail, usually shown on maps.

Uranium-238 – The most common isotope of uranium in the nature, constituting 99.28% of the element.

Vat-leach tailings (VLT) – The material left over from the vat-leach process where copper is extracted from ground copper oxide ore by a leaching process performed in tanks.